

LISTING OF CLAIMS:

- 1 1. (Currently Amended) Apparatus for automatically dispensing a fluid comprising:
 - 2 a) a container adapted to carry a supply of fluid;
 - 3 b) a valve connected to said container, wherein actuation of said valve
 - 4 dispenses the fluid;
 - 5 c) an apparatus position indicator;
 - 6 d) an object sensor positioned near said valve, wherein said object sensor
 - 7 monitors ~~an area~~ a zone below where said valve dispenses, wherein upon
 - 8 detection of an object, said valve dispenses the fluid; and
 - 9 e) wherein during initial positioning of the apparatus in an area, said apparatus
 - 10 position indicator provides an indication when said object sensor is
 - 11 properly positioned in said area to prevent inadvertent triggering of said
 - 12 object sensor.
- 1 2. (Previously Presented) The apparatus according to Claim 1, wherein said apparatus
- 2 position indicator includes at least one illumination device that illuminates when said
- 3 object sensor is properly positioned in said area.
- 1 3. (Previously Presented) The apparatus according to Claim 1, wherein said apparatus
- 2 position indicator includes at least one illumination device that illuminates until said
- 3 object sensor is properly positioned in said area.
- 1 4. (Previously Presented) A method for installing an automated fluid dispenser,
- 2 comprising:
 - 3 a) providing a fluid dispenser, an apparatus position indicator carried by said
 - 4 fluid dispenser, and an object sensor carried by said fluid dispenser;
 - 5 b) connecting a power source to at least said apparatus position indicator and
 - 6 said object sensor;
 - 7 c) positioning said fluid dispenser in at least one prospective mounting
 - 8 location;
 - 9 d) emitting from said object sensor a test signal to ensure proper positioning
 - 10 of said fluid dispenser; and

11 e) if necessary, repeating steps c) and d) until said apparatus position indicator
12 provides an indication that the prospective mounting location is a proper
13 mounting location.

1 5. (Previously Presented) The method according to Claim 4, further comprising:
2 marking a position of said fluid dispenser's proper mounting location; and
3 permanently installing said fluid dispenser at said position.

1 6. (Previously Presented) The method according to Claim 4, further comprising:
2 installing a container in said fluid dispenser.

1 7. (Previously Presented) Apparatus for dispensing a measured quantity of fluid,
2 comprising:
3 a) an object sensor;
4 b) a container carrying a supply of fluid;
5 c) a dispense mechanism coupled to said container to control an amount of the
6 fluid to be dispensed;
7 d) a pump actuator mechanism coupled to said object sensor, wherein
8 detection of an object by said object sensor cycles said pump actuator
9 mechanism to engage said dispense mechanism which dispenses a
10 measured quantity of the fluid;
11 e) a processor coupled to said object sensor and said pump actuator to control
12 at least one operating feature maintained thereby; and
13 f) a hidden switch carried by the apparatus, wherein actuation of said hidden
14 switch places said processor in an operational feature mode that enables
15 modification of said at least one operating feature.

1 8. (Original) The apparatus accordingly to Claim 7, further comprising:
2 at least one illuminating indicia connected to said processor wherein entry into
3 said operational feature mode is indicated by said at least one illuminating indicia.

1 9. (Original) The apparatus according to Claim 8, further comprising:
2 at least two lights, wherein said lights are sequentially illuminated to indicate
3 where an object should be placed for receipt of the fluid; and

4 wherein entry into said operational feature mode allows enablement or
5 disablement of said at least two lights.

1 10. (Previously Presented) The apparatus according to Claim 7, wherein entry into said
2 operational feature mode allows selection of a number of cycles of said pump
3 actuator mechanism to control an amount of dispensed fluid upon detection of an
4 object.

1 11. (Previously Presented) The apparatus according to Claim 7, wherein entry into said
2 operational feature mode allows selection of a size of said dispense mechanism.

1 12. (Previously Presented) The apparatus according to Claim 7, further comprising:
2 a low level indicator connected to said processor,
3 wherein entry into said operational feature mode allows selection of a number
4 of cycles of said pump actuator mechanism to control an amount of dispensed fluid
5 upon detection of an object,
6 wherein entry into said operational feature allows selection of a size of said
7 dispense mechanism, and
8 wherein said processor calculates when the fluid in a given size of container
9 will be depleted to a predetermined level based upon said number of cycles and size
10 of said dispense mechanism.

1 13. (Previously Presented) The apparatus according to Claim 7, further comprising:
2 a timer connected to said processor, said timer initiated upon actuation of said
3 hidden switch to allow for servicing of the apparatus.

1 14. (Original) The apparatus according to Claim 13, wherein said object sensor is
2 disabled while said timer is running.

1 15. (Original) The apparatus according to Claim 14, wherein said object sensor is re-
2 enabled upon either expiration of said timer or re-actuation of said hidden switch.

1 16. (Previously Presented) Apparatus for dispensing a measured quantity of fluid,
2 comprising:
3 a) a container carrying a supply of fluid;
4 b) a dispense mechanism coupled to said container to control an amount of the
5 fluid to be dispensed;
6 c) a pump actuator mechanism coupled to an object sensor, wherein detection
7 of an object by said object sensor cycles said pump actuator mechanism to
8 engage said dispense mechanism which dispenses a measured quantity of
9 the fluid; and
10 d) a timer associated with said dispense mechanism, said timer being utilized
11 to disable said dispense mechanism to mitigate excessive dispensing of the
12 fluid.

1 17. (Previously Presented) The apparatus according to claim 27, wherein said dispense
2 mechanism is re-enabled upon completion of a second period of time.

1 18. (Previously Presented) The apparatus according to claim 27, wherein said
2 predetermined period of time is about 15 seconds.

1 19. (Original) The apparatus according to claim 17, wherein said second period of time
2 is about 45 seconds.

1 20. (Canceled)

1 21. (Previously Presented) Apparatus for dispensing a measured quantity of fluid,
2 comprising:
3 an object sensor which generates an object signal upon detection of an object;
4 a container carrying a supply of fluid;
5 a dispense mechanism coupled to said container to control an amount of the
6 fluid to be dispensed;
7 a pump actuator mechanism, wherein detection of an object by said object
8 sensor cycles said pump actuator mechanism to engage said dispense mechanism
9 which dispenses a measured quantity of the fluid and wherein said pump actuator

mechanism converts rotational motion to linear motion to cycle said dispense mechanism;

a control circuit having a processor to receive said object signal, wherein said processor generates a cycle signal received by said pump actuator mechanism to actuate said dispense mechanism;

said pump actuator mechanism having a motor for cycling said pump actuator mechanism, said motor having a drive input; and

a position sensor coupled to said pump actuator mechanism to detect an end of dispense cycle, and generate a brake input signal when said end of dispense cycle is detected;

wherein generation of said brake input signal connects said motor drive input signal to ground to effectively brake said pump actuator mechanism.

22. (Previously Presented) Apparatus for dispensing a measured quantity of fluid, comprising:

an object sensor which generates an object signal upon detection of an object;

a container carrying a supply of fluid;

a dispense mechanism coupled to said container to control an amount of the fluid to be dispensed;

a pump actuator mechanism, wherein detection of an object by said object sensor cycles said pump actuator mechanism to engage said dispense mechanism which dispenses a measured quantity of the fluid and wherein said pump actuator mechanism converts rotational motion to linear motion to cycle said dispense mechanism;

a control circuit having a processor to receive said object signal, wherein said processor generates a cycle signal received by said pump actuator mechanism to actuate said dispense mechanism, wherein said cycle signal is used to drive a motor and said pump actuator mechanism; and

an overload circuit carried by said control circuit, wherein if said overload circuit detects a voltage value in excess of a predetermined threshold, an overload signal is generated and received by said processor which in turn stops generation of said motor drive signal.

1 23. (Previously Presented) Apparatus for dispensing a measured quantity of fluid,
2 comprising:

3 an object sensor which generates an object signal upon detection of an object;

4 a container carrying a supply of fluid;

5 a dispense mechanism coupled to said container to control an amount of the
6 fluid to be dispensed;

7 a pump actuator mechanism, wherein detection of an object by said object
8 sensor cycles said pump actuator mechanism to engage said dispense mechanism
9 which dispenses a measured quantity of the fluid and wherein said pump actuator
10 mechanism converts rotational motion to linear motion to cycle said dispense
11 mechanism; and

12 a control circuit having a processor to receive said object signal, said control
13 circuit comprising a sensor circuit for said object sensor, and a systems circuit for
14 said processor, wherein said sensor circuit and said systems circuit are maintained on
15 their own respective circuit boards to minimize interference therebetween, and
16 wherein said processor generates a cycle signal received by said pump actuator
17 mechanism to actuate said dispense mechanism.

1 24. (Original) The apparatus according to said Claim 23, wherein each said respective
2 circuit board functions as a shielded backplane.

1 25. (Previously Presented) An apparatus for dispensing a measured quantity of fluid
2 comprising:

3 a housing adapted to carry a container that carries a supply of fluid;

4 a dispense mechanism adapted to be coupled to the container to control an
5 amount of the fluid to be dispensed;

6 an object sensor carried by said housing;

7 a pump actuator mechanism coupled to said object sensor, wherein detection of
8 an object by said object sensor cycles said pump actuator mechanism to engage said
9 dispense mechanism which dispenses a measured quantity of the fluid, wherein said
10 pump actuator mechanism shuts down if said object sensor detects excessive use.

1 26. (Previously Presented) The apparatus according to claim 25, further comprising:
2 a dispense timer having a dispense time period; and

3 a disable timer having a disable time period, wherein both said dispense timer
4 and said disable timer are associated with said pump actuator mechanism such that
5 during said dispense time period if a predetermined number of dispense events are
6 detected, said pump actuator mechanism is disabled for said disable time period.

1 27. (Previously Presented) The apparatus according to claim 16, wherein the dispense
2 mechanism is disabled after a predetermined time period if a predetermined number
3 of dispense events occur within said predetermined period of time.

1 28. (Previously Presented) The apparatus according to claim 1, wherein said apparatus
2 position indicator provides an indication when said object sensor is properly
3 positioned in said area and a different indication when said object sensor is
4 improperly positioned.

1 29. (Previously Presented) The apparatus according to claim 7, wherein entry into said
2 operational feature mode allows a modification associated with a type of the fluid in
3 said container.